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ABSTRACT

The National Assessment of Educational Progress (NAEP) has developed a new generation of assessment tasks for assessing student achievement in the visual arts. Using paper-and-pencil and performance formats, these tasks draw on the concepts, skills, and processes used to create and understand visual images from a variety of world cultures and historical periods. This report summarizes results from the 1997 assessment of eighth grade student achievement in the arts. Students were assessed in music and the visual arts using a nationally representative sample of all students, regardless of their background in music or the visual arts. The visual arts sample data included about 2500 public and private school students. The assessment covered content and process. The content included knowledge and understanding of the visual arts and perceptual, technical, expressive, and intellectual/reflective skills. The processes included creating and responding. In 1995 NAEP field tested the assessment tasks for grades four and eight. Twelfth-grade tasks were field tested in 1997. The NAEP assessment used two types of tasks in the visual arts field tests: paper-and-pencil tasks and performance tasks. Paper-and-pencil tasks required students to respond to multiple choice questions, short constructed-response questions, and extended-response questions. The performance tasks required students to work in a variety of media: paints, drawing pencils, drawing charcoal, Plasticine, and various construction materials. The scoring guides for the pencil-and-paper tasks used criteria similar to the following, giving credit for "extensive" answers that went beyond what was required: unacceptable, partial, essential, and extensive. Seven criteria for evaluating the performance tasks were established. (JEH)

NAEP and the Visual Arts: Framework, Field Test, and Assessment.

by Alan Vanneman

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NAEP and the Visual Arts: Framework, Field Test, and Assessment

Abstract: NAEP has developed a new generation of assessment tasks for student achievement in the visual arts. These tasks draw upon the concepts, skills, and processes used to create and understand visual images from a variety of world cultures and historical periods, using both paper-and-pencil and performance formats.

In 1992, the Arts Education Consensus Project, sponsored by the National Assessment Governing Board (NAGB), began an 18-month effort to establish objectives for assessing arts instruction in the nation's elementary and secondary schools. The National Assessment of Educational Progress (NAEP) had assessed the visual arts in 1975 and 1978¹. The National Endowment for the Arts, in collaboration with the Getty Center for Education in the Arts, funded the Arts Education Consensus Project, designed to develop the NAEP Arts Education Assessment Framework.

The Consensus Project² identified objectives for arts education in general and individually for dance, music, theatre, and the visual arts, in the fourth, eighth, and twelfth grades. It also developed Assessment Specifications for each of the four arts, setting forth requirements for the content of the assessments in more detail. NAEP field-tested the visual arts assessment for the fourth and eighth grades in 1995 and for the twelfth grade in 1997. In the spring of 1999, NAEP will publish a Field Test Process Report, on the development, administration, and scoring of arts tasks for the three grades. The report will cover all four arts, including the visual arts.

In 1997, NAEP conducted an assessment of eighth-grade students' achievement in the arts. NAEP assessed eighth-grade students in music and the visual arts using a nationally representative sample of all students, regardless of their background in music or the visual arts. The sample for the visual arts assessment, approximately 2,500 students, in both public and private schools, was large enough to obtain statistically valid results. The theatre assessment was a targeted assessment, limited to students who would have completed at least 30 class hours in theatre instruction by the end of the 1996-97 school year. Because there were too few dance programs in schools to allow for an adequate na-



The NAEP 1997 Visual Arts Assessment allows extensive assessment of student creativity.

NOTE: For reasons of confidentiality, the students shown in this picture are not NAEP participants.

PHOTO BY UNIFOTO

Table 1.—NAEP Guidelines for Visual Arts Assessment

Visual arts assessment shall

- Affirm the visual arts as a way of knowing with a unique capacity to integrate the intellect, emotions, and physical skills.
- Honor the visual arts as a discrete art form, but also encourage students to see the artistic experience as a unified whole.
- Examine and report on developing abilities of students.
- Connect with students' real-life experiences of the visual arts.
- Evaluate students through performance.
- Go beyond quantification to include critical judgment.
- Use background variables to recognize differences in school resources (large-scale assessments only).
- Address both the processes and products of the visual arts, and expand the public's awareness of the importance of each.
- Produce information useful to a variety of audiences—students, parents, teachers, administrators, policy-makers, artists, and other community members.
- Reflect a pluralistic view of visual arts education, both in terms of individual products and the cultural bases of the visual arts.

Source: NAEP 1997 Arts Education Assessment Framework, National Assessment Governing Board

tional sample, NAEP did not conduct an assessment in dance. Results of the three assessments, together with samples of arts tasks for all four arts, will appear in the NAEP 1997 Arts Report Card, which will be published in the fall of 1998.

The next two sections of this *Focus on NAEP* summarize the current visual arts framework, which is set forth in full in the *NAEP 1997 Arts Education Assessment Framework*. Following these sections will be a discussion of the visual arts field tests.

The Importance of the Visual Arts

The NAEP Arts Education Assessment Framework is founded on a vision of a society that believes the arts are essential for every child's complete development and education. To be fully educated, students must be able to draw on artistic experiences and knowledge as a means of understanding both themselves and the world around them. They must be able to use the arts as an important vehicle for communicating ideas in our increasingly multimedia society.

The visual arts are rightly described in the plural; at their broadest, they take in such forms as painting, drawing, printmaking, and sculpture. They also embrace more recent media (photography, film, video, and computer imaging), and functional design areas such as architecture and industrial and graphic design. The visual

arts enable students to reflect on what they inherit from past and present world cultures.

The expectation of the framework as a whole and for the visual arts in particular is not that all students will become professional artists, although some will. What is expected is that they will have experienced enough of the discipline, the challenge, and the joy of creating in different art forms to understand intimately the human significance of all the arts, not simply the visual arts (see table 1 for assessment guidelines).

The Visual Arts Assessment Framework: Content and Processes

The visual arts assessment covers both content and processes. Content includes (1) *knowledge and understanding* of the visual arts and (2) *perceptual, technical, expressive, and intellectual/reflective* skills. Processes include (1) *creating*, and (2) *responding*. (In the visual arts, unlike dance, music, and theatre, performing is not one of the processes). While much of what students know, as well as what they can do, will be demonstrated through creative work, the visual arts assessment framework includes a written portion as well. Table 2 sets forth the visual arts assessment framework in brief.

Table 2.—Visual Arts Assessment Framework

Processes	
Creating	Responding
• Students generate subjects, themes, problems, and ideas for works of art and design in ways that reflect knowledge and understanding of values (personal, social, cultural, historical), aesthetics, and context. • Students invent and use ways of generating visual, spatial, and temporal concepts in planning works of art and design. • Students select and use form, media, techniques, and processes to achieve goodness of fit with the intended meaning or function of works of art and design. • Students experiment with ideas (sketches, models, etc.) before final execution as a method of evaluation. • Students create a product that reflects ongoing thoughts, actions, and new directions.	• Students reflect upon and evaluate their own works of art and design. • Students describe works of art and design in ways that show knowledge of form, aesthetics, and context (personal, social, cultural, historical). • Students analyze and interpret works of art and design for relationships between form and context, form and meaning or function, and the work of critics, historians, aestheticians, and artists/designers. • Students articulate judgments about works of art and design that reflect attitudes and prior knowledge (description, analysis, interpretation). • Students apply judgments about works of art and design to decisions made in daily life, developing a personal belief system and world view that is informed by the arts.
Content	
Knowledge	Skills
• Understanding of context (personal, social, cultural, and historical) • Aesthetics • Form and Structure • Technical Processes	• Perceptual • Technical • Expressive • Intellectual/reflective
SOURCE: 1997 NAEP Arts Education Assessment Framework, National Assessment Governing Board.	

Content

Knowledge in the visual arts relates to understanding the meaning of visual form and how it is conveyed. For example, students must be able to account for the influence of context (personal, social, cultural, and historical) on meaning in both creating and responding to works of art and design. They explore the content of visual form through examinations of subject matter, means of representation, media and processes, visual organization, composition, and theoretical frameworks (philosophical or aesthetic constructs) for creating and interpreting the visual arts. In areas of functional design, knowledge of user/audience characteristics is also critical to creating objects and environments that meet performance criteria.

Skills in the visual arts relate to understanding how to construct or interpret meaning in visual form. Creating skills include gathering information, analyzing and synthesizing experience; generating many visual ideas or solutions; selecting among competing ideas, media, or processes; planning and organizing the visual execution of ideas; evaluating ideas and form; and applying technical proficiency in the making of visual objects. Responding includes many of the above skills applied in interpretive contexts. Verbal skills exhibited in oral and written presentations and the construction of convincing arguments are also relevant.

Processes

Creating in the visual arts and areas of functional design involves students in the construction and communication of meaning through the making of works of a tangible

Table 3.—Guidelines for Stimulus Materials for Visual Arts Tasks

The categories for stimulus materials are meant to provide a broad view of visual art from a historical as well as a geographic perspective. It will be important to select images and examples that are appropriate to the grade level. Color print reproductions or three-dimensional reproductions of works of art/design need to reflect the diversity of art styles, periods, and cultures, as well as representation of fine and folk or craft traditions

Percentage by Geographic Regions/Cultural Groups

African	15%
Asian (Near/Middle East)	10%
Asian (Far East)	10%
Australian/Pacific	10%
European	20%
North America	20%
South America	15%

Percentage by Time Periods (Global Scope)

pre-13th century	20%
13th–14th centuries	10%
15th–16th centuries	10%
17th–18th centuries	15%
19th century	15%
20th century: 1900–1950	15%
20th century: 1950–present	15%

object, visible performance or environment. It involves feeling, thinking, and doing. The creative process seeks to integrate the artist's intuitive and emotional insights with rational thought, critical judgment, and the physical and cognitive abilities required to make successful visual forms.

Responding in the visual arts means interpreting works of art or design done by artists/designers or the students themselves. Responding is an interpretive and evaluative behavior that reveals knowledge of how visual form communicates meaning in various contexts. It includes the ability to articulate as well as formulate judgments.

The writers of the framework sought to be as inclusive as possible both in terms of the kinds of art students would be asked to analyze, and in terms of the kinds of production tasks students would be given. The Consensus Project's Assessment Specifications require coverage of art dating from before the 13th century to the pre-

sent, from a wide range of geographic areas, including Africa, Asia, Europe, and South America (see table 3).

The framework envisioned that students would have the opportunity to show what they know and can do vis-à-vis the visual arts by both analyzing and creating works of art and design. Students would engage in a range of processes that would capture the complexity of analyzing and creating.

The Field Test Samples

NAEP conducted the fourth- and eighth-grade visual arts field tests in 1995. About 2,700 public and private school students participated in each of the two field tests. NAEP conducted the twelfth-grade field test in 1997. About 1,200 students participated. All three field tests sampled a general population of students.

Visual Arts Tasks

NAEP used two types of assessment tasks in the visual arts field tests: paper-and-pencil and performance. Assessment tasks were prepared by the Educational Testing Service, under the guidance of a committee of experts in visual arts education. The fourth-grade field test devoted 60 minutes to the paper-and-pencil tasks and 30–40 minutes to the performance task, as did the eighth-grade field test. The twelfth-grade field test devoted 65 minutes and 45–60 minutes, respectively. In all cases, assessment times are approximate only, depending on the specific tasks involved.

The performance task assessed creating, while the paper-and-pencil tasks assessed students' abilities to respond to the visual arts. To ensure coverage of all aspects of knowledge of the visual arts, and to lighten the burden on a given student, NAEP developed a number of different "blocks," for both the paper-and-pencil and the performance tasks. Students in the sample were assigned at random to several paper-and-pencil blocks and one performance block. While the NAEP 1997 Visual Arts Assessment went further in covering the full range of the visual arts than previous assessments, due to constraints of time and expense it was not possible to assess student performance in such areas as film and video.

NAEP performance tasks are designed to be as authentic as time and resources permit. However, the assessment

tasks must also offer the same opportunities and the same challenges, in the same circumstances, for all students assessed. No comparison across students is possible without such standardization. In 1998, NAEP will make all tasks not subject to copyright, both paper-and-pencil and performance, for all three grades, available to the public.

1. Paper-and-Pencil Tasks

The paper-and-pencil tasks used multiple-choice, short constructed-response, and extended constructed-response questions. Constructed-response questions require written answers from the students. (See table 4 for an example of the kinds of issues raised by constructed-response questions.) On the field test for twelfth-grade students, constructed-response questions constituted over two thirds of the total number of paper-and-pencil questions.

The paper-and-pencil tasks went well beyond traditional "art appreciation" questions. One task asked students to consider several sculptures, intended for use in a public space, and to select the one most appropriate for an imaginary community, explaining their reasons for doing so, based on such considerations as the makeup of the community and the purpose of the statue. Students were also asked to consider design issues involved in basic household utensils.

2. Performance Tasks

Performance tasks required students to work with a variety of media. For example, the twelfth-grade field test performance tasks involved Plasticine (a clay-like sub-

stance), paints, drawing pencils, drawing charcoal, and a variety of construction materials. Students were given such tasks as printmaking, creating a relief sculpture, creating sculptures or drawings while taking inspiration from processes or emotions described in a brief story, and designing an architectural model of an interior space. (See table 5, next page, for a sample scoring guide.) Often, students were asked to critique their own work.

Creating and administering a national assessment was very challenging. The NAEP Visual Arts Framework, Field Test, and Assessment provide useful models for future assessments, at the state and local level, as well as nationally. Several important problems were confronted during the development and scoring of the assessment. Among these were how to create tasks suitable for a variety of students with a variety of educational backgrounds, while also making distinctions among levels of student ability. These issues, among others, will be explored in the upcoming arts reports.

Footnotes

1. For results from the first assessment of the visual arts, see the following:

Design and Drawing Skills. Selected Results from the First National Assessment of Art, June 1977. National Center for Education Statistics, Washington, DC. ERIC # ED141249.

Knowledge About Art. Selected Results from the First National Assessment of Art. Education Commission of the States, Denver, CO. ERIC # ED155116.

Attitudes Toward Art. Selected Results from the First National

Table 4.—Twelfth-Grade Visual Arts Field Test Scoring Guide for Paper-and-Pencil Task

The visual arts assessment field test gave students tasks such as reacting to a sculpture. Scoring guides used criteria similar to the following, giving credit for "extensive" answers that went beyond what was required:

Unacceptable: The student does not address the sculpture in any meaningful way, failing to identify any specific aspect of the work as its strongest element, and failing to describe how that aspect relates to the work as a whole. Examples: "It's pretty. It's interesting. I like it."

Partial: The student offers a brief comment on one aspect of the work, without explanation. Examples: "There is a small figure and a large head, that make an interesting contrast," or "There's a coat with no one in it."

Essential: The student singles out one aspect of the work as the strongest, and specifically describes it, but relates it to the work as a whole in only a general way.

Extensive: The student singles out one aspect of the work as the strongest and specifically describes it. The student also relates the aspect to the work as a whole in a clear and intelligent way. The student may refer to formal elements of the sculpture, or to the emotional or imaginative experience that the sculpture provokes.

Table 5.—Twelfth-Grade Visual Arts Field Test Scoring Guide for a Performance Task

The scoring guides for the performance tasks on the NAEP visual arts field test attempted to capture the full range of possible student outcomes. In one performance task for the twelfth-grade field test, students were asked to develop an architectural model for a space that would represent a solution for a specified problem. To obtain full credit, students had to provide a model that met all of the following criteria:

- the problem is solved through the definition of space rather than the use of decoration.
- the solution is built to a practical scale.
- the solution exhibits an understanding of the role that placement of design features plays in defining the experience of the user.

- the solution exhibits an understanding of the role of the placement of the entrance and exit.
- the solution goes beyond the notion of a conventional room by exploring the potential of changing elevation, piercing walls, and modifying the shape of the space.
- the solution exhibits an understanding of the structural principles necessary to make walls stand up.
- the solution exhibits an understanding of the nature of materials and how they behave; joinery and spanning distance are used correctly and inventively.

Assessment of Art, Education Commission of the States, Denver, CO. ERIC # ED166122.

For results from the second assessment of the visual arts, see *Art and Young Americans, 1974-1979: Results from the Second National Art Assessment*. National Center for Education Statistics, National Institute of Education, Washington, DC. ERIC # ED212538.

2. For details on the Arts Education Consensus Project, see the *Arts Education Assessment Framework for the 1997 National Assessment of Educational Progress (1994)*, the National Assessment Governing Board.

For Further Information

Arts Education Assessment Framework for the 1997 National Assessment of Educational Progress. Single copies are available free from the National Assessment Governing Board, 800

North Capitol Street, NW, Suite 825, Washington, DC 20002-4233. Copies may also be obtained on the World Wide Web at <http://www.nagb.org/pub.html>.

National Standards for Arts Education. Copies are available for \$20 from the Music Educators National Conference, 1806 Robert Fulton Drive, Reston VA 20191, 800-336-3768.

Arts Education in Public Elementary and Secondary Schools, NCES 95-082, provides data obtained from questionnaires sent to the principals of nationally representative samples of public schools. It is not in print, but is available over the NAEP web site at <http://nces.ed.gov/NAEP/>.

The following Focus on NAEP publications are also available free from the National Center for Education Statistics, U.S. Department of Education, Washington, DC 20208-5653. Copies may also be accessed over the World Wide Web at <http://nces.ed.gov/NAEP/>.

The NAEP Arts Education Framework, Field Test, and Assessment, NCES 98-527

NAEP and Dance: Framework, Field Test, and Survey, NCES 98-459

NAEP and Music: Framework, Field Test, and Assessment, NCES 98-529

NAEP and Theatre: Framework, Field Test, and Assessment, NCES 98-528

The Focus on NAEP series briefly summarizes information on the ongoing development and implementation of the National Assessment of Educational Progress (NAEP). The series is a product of the National Center for Education Statistics (NCES), Pascal D. Forgione, Jr., Commissioner, and Gary W. Phillips, Associate Commissioner for Education Assessment. This Focus on NAEP was written by **Alan Vanneman**, of the Education Statistics Services Institute and **Mac Arthur Goodwin** of the South Carolina State Department of Education. To order other NAEP publications, call Bob Clemmons at 202-219-1690, or e-mail bob_clemmons@ed.gov.

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